

1. (Twice Amended) A method for assessing chemosensitivity of non-malignant cells [comprising] consisting essentially of the steps of:

5 a) harvesting a specimen of a patient's tissue[, ] or cells[, ascites, or effusion fluid];

b) separating mechanically said specimen into cohesive multicellular particulates with a particle size distribution between about 0.25 mm<sup>3</sup> and about 1.5 mm<sup>3</sup>;

10 c) growing a tissue culture monolayer from said cohesive multicellular particulates;

d) inoculating cells from said monolayer into a plurality of segregated sites; and

15 e) treating said plurality of segregated sites with at least one treating means, determining cell number relative to at least one control, followed by correlating [sensitivity] chemosensitivity of the cells in said plurality of sites to said at least one treating means.

4. (Twice Amended) The method according to claim 1 wherein step e) further comprises the step of treating each of said plurality of sites with a unique combination of [active] a single agent and a single concentration, followed by assessment of optimal chemosensitivity with respect to a single [active] agent at a single concentration.

5. (Twice Amended) The method according to claim 1 wherein said treating means further comprises:

treating each of said plurality of sites with an

[active] agent over a length of time adequate to permit  
5 assessment of both initial cytotoxic effect and longer-term  
inhibitory effect of [at least one active] said agent.

15. (Twice Amended) A method for identifying  
chemosensitivity of cells comprising the steps of:

a) harvesting a non-malignant specimen of a patient's  
tissue, cells, ascites, or effusion fluid;

5 b) separating mechanically said specimen into  
multicellular particulates;

c) growing a tissue culture monolayer from said  
cohesive multicellular particulates; [and]

10 d) immunohistochemically staining said cells to  
identify one or more cellular markers characteristic of said  
tissue, cells, ascites, or effusion fluid, and indicative of a  
disease state or lack thereof ; and

e) counting cells to derive data regarding  
chemosensitivity.

16. (Twice Amended) A method for [identifying]  
detecting secreted cellular antigens produced by cells comprising  
the steps of:

5 a) harvesting a specimen of a patient's tissue, cells,  
ascites, or effusion fluid;

b) separating mechanically said specimen into cohesive  
multicellular particulates;

c) growing a tissue culture monolayer in culture medium  
from said cohesive multicellular particulates; and